



1. (Amended) A link mechanism for establishing the position of a second spherical bearing of the mechanism relative to a first spherical bearing of the mechanism, and for establishing the direction, relative to a rod of the mechanism, of an arm segment extending from said second bearing, the link mechanism comprising:

said rod; and

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said first and said second spherical bearings attached to said rod, said two spherical bearings being capable of changing positions relative to each other along said rod,

wherein motion of one of said two spherical bearings relative to said rod along an axis of the rod is constrained, and the other of said spherical bearings can travel along said rod.

2. (Amended) A link mechanism according to claim 1, wherein the position of the second bearing and the direction of said arm segment are defined by coordinate values of one of said two spherical bearings and the position of the other of said two spherical bearings relative to the one of said two spherical bearings.

3. (Amended) A link mechanism according to claim 1, wherein the link mechanism is a part of a robot arm.

4. (Amended) A link mechanism for establishing the position of a second support of the mechanism relative to a first support of the mechanism, and for establishing the direction, relative to a rod of the mechanism, of an arm segment extending from said second support, the link mechanism comprising:

said rod; and

said first and said second supports attached to said rod, said two supports being capable of changing positions relative to each other along said rod,

B₂
(cont.)

wherein motion of one of said two supports relative to said rod along an axis of the rod is constrained, and the other of said supports can travel along said rod.

5. (Amended) A link mechanism according to claim 4, wherein the position of the second support and the direction of said arm segment are defined by coordinate values of one of said two supports and the position of the other of said two supports relative to the one of said two supports.

6. (Amended) A link mechanism according
B₂ to claim 4, wherein the link mechanism is a part of a robot arm.
(was 11)

Please enter the following claims:

--7. (new) Method for establishing the
position of a second spherical bearing of a link mechanism
relative to a first spherical bearing of the mechanism, and for
establishing the direction, relative to a rod of the mechanism,
of an arm segment extending from said second bearing, the method
comprising:

attaching said spherical bearings to
said rod, and enabling said two spherical bearings to change
positions relative to each other along said rod;

B₃ wherein motion of one of said two
spherical bearings relative to said rod along an axis of the rod
is constrained, and the other of said spherical bearings can
travel along said rod; and the method further comprises a step of

defining coordinate values of one of
said two spherical bearings and the position of the other of said
two spherical bearings relative to the one of said two spherical
bearings.

8. (new) Method according to claim 7,
wherein the link mechanism serves as an output of a robot.

9. (new) Method for establishing the
position of a second support of a link mechanism relative to a
first support of the mechanism, and for establishing the
direction, relative to a rod of the mechanism, of an arm segment
extending from said second support, the method comprising:

attaching said supports to said rod, and
enabling said two supports to change positions relative to each
other along said rod;

wherein motion of one of said two
supports relative to said rod along an axis of the rod is
B,
(as solid) constrained, and the other of said supports can travel along said
rod; and the method further comprises a step of

defining coordinate values of one of
said two supports and the position of the other of said two
supports relative to the one of said two supports.

10. (new) Method according to claim 9,
wherein the link mechanism serves as an output of a robot.
